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//First Fit
#include <stdio.h>
#define MAX 10
void main()
{
    int bsize[MAX], psize[MAX], bno, pno, flag[MAX], allocation[MAX];
    for (int i = 0; i < MAX; i++)
    {
        flag[i] = 0;
        allocation[i] = -1;
    }
    printf("Enter no. of blocks: ");
    scanf("%d", &bno);
    printf("Enter size of each block:\t");
    for (int i = 0; i < bno; i++)
        scanf("%d", &bsize[i]);
    printf("Enter no. of process: ");
    scanf("%d", &pno);
    printf("Enter size of each process:\t");
    for (int i = 0; i < pno; i++)
        scanf("%d", &psize[i]);

    for (int i = 0; i < pno; i++)
        for (int j = 0; j < bno; j++)
            if (flag[j] == 0 && bsize[j] >= psize[i])
            {
                allocation[j] = i;
                flag[j] = 1;
                break;
            }
    printf("\nBlock No\tSize\tProcess No.\t\tSize\t\tRemaining");
    for (int i = 0; i < bno; i++)
    {
        printf("\n%d\t\t%d\t\t", i + 1, bsize[i]);
        if (flag[i] == 1)
            printf("%d\t\t%d\t\t%d", allocation[i] + 1, psize[allocation[i]], bsize[i] -
psize[allocation[i]]);
        else
            printf("Not Allocated");
    }
}

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//Best Fit
#include <stdio.h>
#define MAX 10
int main()
{
    int bsize[MAX], psize[MAX], pno, bno, temp, low;
    static int flag[MAX], allocation[MAX];
    printf("Enter no. of blocks: ");
    scanf("%d", &bno);
    printf("Enter size of each block:\t");
    for (int i = 0; i < bno; i++)
        scanf("%d", &bsize[i]);
    printf("Enter no. of process: ");
    scanf("%d", &pno);
    printf("Enter size of each process:\t");
    for (int i = 0; i < pno; i++)
        scanf("%d", &psize[i]);
    printf("\nProcess No.\tSize\t\tBlock No\tSize\t\tRemaining\n");
    for (int i = 0; i < pno; i++)
    {
        low = 10000;
        allocation[i] = -1;
        for (int j = 0; j < bno; j++)
            if (flag[j] != 1)
            {
                temp = bsize[j] - psize[i];
                if (temp >= 0 && temp < low)
                {
                    allocation[i] = j;
                    low = temp;
                }
            }
        if (allocation[i] != -1)
        {
            printf("%d\t%d\t\t%d\t\t%d\t\t%d\n", i + 1, psize[i], allocation[i] + 1,
bsize[allocation[i]], low);
            flag[allocation[i]] = 1;
        }
    }
    return 0;
}

```

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//Worst Fit
#include <stdio.h>
#define MAX 10
int main()
{
    int bsize[MAX], psize[MAX], pno, bno, temp, high;
    static int flag[MAX], allocation[MAX];
    printf("Enter no. of blocks: ");
    scanf("%d", &bno);
    printf("Enter size of each block:\t");
    for (int i = 0; i < bno; i++)
        scanf("%d", &bsize[i]);
    printf("Enter no. of process: ");
    scanf("%d", &pno);
    printf("Enter size of each process:\t");
    for (int i = 0; i < pno; i++)
        scanf("%d", &psize[i]);
    for (int i = 0; i < pno; i++)
    {
        high = -1;
        for (int j = 0; j < bno; j++)
            if (flag[j] == 0 && bsize[j] >= psize[i])
                if (high == -1 || bsize[j] > bsize[high])
                    high = j;

        if (high != -1)
        {
            allocation[i] = high;
            flag[high] = 1;
        }
        else
            allocation[i] = -1;
    }
    printf("\nProcess No.\tSize\t\tBlock No\tSize\t\tRemaining\n");
    for (int i = 0; i < pno; i++)
    {
        if (allocation[i] == -1)
            printf("%d\t\t%d\t\t\tNot Allocated\n", i + 1, psize[i]);
        else
            printf("%d\t\t%d\t\t%d\t\t%d\t\t%d\n", i + 1, psize[i], allocation[i] + 1,
bsize[allocation[i]], bsize[allocation[i]] - psize[i]);
    }
    return 0;
}

```